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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	)	
Ellis L. Kline	)	
Serial No. **09/827,302**	)	Art Unit: **1651**
Filed: **APRIL 5, 2001**	)	Examiner: **MELLER, M.**
For: **METHODS AND COMPOSITIONS FOR TREATING NEOPLASMS**	)	

DECLARATION UNDER 37 C.F.R. § 1.132 BY ELLIS KLINE, PH.D.

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1430

Sir:

I, Ellis Kline, Ph.D., do hereby declare:

1. I have extensive experience in the fields of molecular biology, genetics, microbiology and immunology as I have worked in these fields for the past 30 plus years. My expertise in the areas of molecular biology, genetics, microbiology and immunology is further indicated by the approximately 37 publications and book chapters that I have authored or co-authored on these subjects. I have provided advice in these areas to both large pharmaceutical companies and the United States Department of Agriculture.

I received a Master of Science in Biology in 1968 from Northern Illinois University, Dekalb, Illinois and received a Doctor of Microbiology in 1972 from the University of California, Davis, California. In 1978, I became a professor of Microbiology at Clemson University and in that capacity, I maintained a research laboratory, directed 22 graduate students, 5 postdoctoral research associates and 17 guest

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doctoral investigators. From 1991 until the present time, I have been the president of Molecular Rx, Inc. in Pendleton, South Carolina, and from 1985 to the present time, I have been Executive Scientific Director of Milkhaus South Laboratory, Inc. also in Pendleton, South Carolina. Molecular Rx, Inc. develops innovative therapeutics and diagnostics for the human and veterinary market including a rubella virus immunomodulator (RVI) therapeutic currently on the equine market.

2. I have reviewed the following prior art references cited by the Examiner in the above-referenced patent application: Sedlacek *et al.*, Int. J. Immunopharmacol., 9 (7), 1987; Sedlacek, *et al.*, Cancer Immunol. Immunother. 23 (3), 1986; Maiskii *et al.*, Byull Eksp Biol Med (12) 1977 (as translated and re-published in 1978); Knop *et al.*, Immunology, 34 (2), 1978; Gautam *et al.*, Indian J. Med. Res. 64 (3), 1976; Sedlacek, *et al.*, Cancer Immunology Immunother 1978 5/3; Mobley *et al.*, Res. Commun. Chem. Path. Pharmacol. 1974, 9/1; Green *et al.*, Kline *et al.*, '133 and Kline *et al.*, '863. I am aware of the previously pending claims 1, 2, 4-9 and 12-15 and that the Examiner rejected these claims as obvious over the above-cited references.

3. The above cited references teach away from the presently claimed invention. It would not have been obvious to combine the above cited references to arrive at the invention. More specifically, one of ordinary skill in the art would understand the totality of the cited references to teach that lower amounts of neuraminidase can be used for the treatment of a cancer when a tumor cell is co-administered with the neuraminidase, but that huge increases in neuraminidase are required when the tumor cell is removed and only neuraminidase is administered. Despite these teachings, I found that neuraminidase can be administered in low amounts

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without tumor cells for the treatment of cancer. I did not combine any of the above cited references to arrive at the invention as presently claimed.

4. Examples of the tremendous results achieved using the presently claimed invention are provided below. These results were highly unexpected by many physicians to whom I explained the presently claimed invention. Accordingly, these results further indicate that the present invention is not obvious over the cited references.

Patient Selection and Administrations

Positive results were not expected from the neuraminidase therapy presently claimed, and therefore, most patients were selected for receiving the therapy only after they had received traditional cancer therapies without success. Many of these patients were considered terminal, having less than a year to live and some only a few months to live, when they began to receive the neuraminidase therapy. A composition comprising between approximately 10^{-2} mg to approximately 10^{-8} mg of neuraminidase, and containing no tumor cells, (hereinafter "the neuraminidase therapy") was administered to these patients for the treatment of cancer during trials in Australia under the supervision of several different physicians. Administration of the neuraminidase therapy to many of these terminally ill cancer patients surprisingly resulted in the management or cure of their cancer. A sample of these patients is provide below. The results of these administrations were very unexpected and surprising.

Sample of Patients Treated

Patient A was diagnosed with metastatic breast cancer and underwent a double mastectomy and a complete hysterectomy in the year 2000. Patient A received high doses of traditional chemotherapy, but by mid-2001 was given a terminal prognosis of three months to live. Patient A began the neuraminidase therapy approximately one

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month thereafter and was informed in late 2002 that no signs of breast cancer were found in her mammogram.

Patient B was diagnosed with metastatic melanoma and given approximately three to six months to live. Patient B began the neuraminidase therapy soon after diagnosis and only three months later was found to be in complete remission. Patient B was only the 190th person since the year 1900 to go into remission from this type of stage 4 cancer.

Patient C was diagnosed with cancer in the prostate, liver, pancreas and intestine. Patient C began the neuraminidase therapy and six months later there was no indication of malignancy on a CAT scan or MRI.

Patient D was diagnosed with an advanced brain tumor and given approximately three to five months to live. This patient presented with extreme pain and no coherence. Patient D began the neuraminidase therapy and six months later was found to be in remission.

Patient E was diagnosed with leukemia and given approximately four months to live. Patient E began the neuraminidase therapy and six months later a biopsy of the lymph showed no indication of cancer.

Patient F was diagnosed with uterine cancer that had metastasized throughout the uterus, all reproductive organs and the liver. Patient F was given approximately one to four months to live. Patient F began the neuraminidase therapy and was considered cancer free seven months later.

Patient G was diagnosed with a non-small cell lung cancer that had metastasized throughout several tissues outside the lungs. Patient G was given approximately six to nine months to live. Patient G began the neuraminidase therapy and eight months later there was no detectable cancer.

Patient H had a mass the size of small grapefruit in the throat area and was diagnosed with stage 4 terminal esophageal cancer. Thereafter, patient H began the

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neuraminidase therapy. While the grapefruit size mass did not decrease in size following therapy, analysis of the mass following its removal indicated that no cancer cells were present in the mass. Analysis of the tissues and nodes in the vicinity of the removed mass indicated that all cancer cells in those locations were killed.

Ability to Treat Multiple Cancers Effectively

As can be seen from the examples above, the neuraminidase therapy claimed in the present invention is a very effective treatment for multiple types of cancer. The ability of the neuraminidase therapy to manage or cure cancer in patients whose bodies were ravaged by cancer, and whose cancer could not be treated by other cancer therapies, underscores the great importance of the therapy. This therapy has surprisingly saved multiple lives and should be regarded as an important and valuable invention that is not obvious over the prior art.

5. I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine, or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of any patent issuing on this application.

11-26-03
Date

Ellis Kline
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